## Ponds And Lagoon Leakage

1. Pond Lining
1.1 What material was used to line your ponds?
2. Flow Measurements
2.1 Did you measure influent flow to your wastewater ponds or lagoons?
o Yes (0 points) $\square \square$
o No (40 points) (Go to question 6) $\square \square$
2.1.1 Method of influent flow measurement:
$\square$
2.2 Did you measure effluent flow discharged from your wastewater system either to the land disposal system or to the receiving stream?

- Yes (0 points)
- No (40 points) (Go to question 6) $\square \square$
- No Discharge (0 points)
2.2.1 Method of effluent flow measurement:
$\qquad$

3. Total Flow Volumes
3.1 Total monthly influent and effluent flow volumes from the pond/lagoon system during the last calendar year.

| Total Monthly <br> Influent Volume |  | Total Monthly <br> Effluent Volume |
| :---: | :---: | :---: |
| 2.9799 | JANUARY | 3.1269 |
| 2.6774 | FEBRUARY | 3.2781 |
| 2.766583 | MARCH | 2.9522 |
| 2.491865 | APRIL | 3.3133 |
| 2.584027 | MAY | 2.9855 |
| 2.234828 | JUNE | 2.4413 |
| 1.307991 | JULY | 2.4978 |
| 2.978751 | AUGUST | 2.4811 |
| 2.973182 | SEPTEMBER | 2.6654 |
| 3.701501 | OCTOBER | 3.4207 |
| 3.196495 | NOVEMBER | 3.0537 |
| 3.148952 | DECEMBER | 3.3331 |
| 33.0415 | YEARLY TOTAL | $\mathbf{3 5 . 5 4 9 1}$ |

3.2 From the Yearly Total influent and effluent volumes above, total effluent is divided by total influent and converted to a percent of volume loss.
Total effluent, MG => $\quad 35.5491$
-------------------- $\quad-----------\quad=1.076 \quad<=$ effl $/$ infl ratio

Total influent, MG => 33.0415

Conversion to a percent of volume loss:
(1-effl/infl ratio) * $100=-7.6 \quad \%$ of influent lost and not discharged with effluent
4. Surface Area
4.1 What was the total wastewater surface area of the ponds/lagoons at operating level (do not include seepage cells)?

## Acres

5. Leakage Rate Estimation
5.1 Total influent volume (in MG) minus total effluent volume (in MG) plus or minus the change in pond/lagoon storage (in MG) is the net wastewater loss. The net loss divided by 0.000365 equals the estimated leakage amount in gpd.

| Total Annual Influent (MG) | 33.0415 |  |
| :---: | :---: | :---: |
| Total Annual Effluent (MG) | 35.5491 |  |
| Estimated Net Loss (MG) | -2.5076 |  |
| Estimated Leakage Amount (gpd) |  | -6870 |

If you have a *Department approved* method for determining a change in storage volume, enter the storage change last year in MG below.

- Storage Increase: Enter amount in MG ->
o Storage Decrease: Enter amount in MG ->

5.2 CMAR Estimated Leakage Rate in gallons per acre per day (gpad): The CMAR Estimated Leakage Rate in gpad is the leakage amount in gpd (from part 5.1) divided by the total pond surface area (from question 4).

| Leakage Amount <br> (gpd) |  | Acres | CMAR Estimated <br> Leakage Rate |
| :---: | :---: | :---: | :---: | :---: |
| -6870 | divided <br> by |  | $=$ |

6. On Site Leakage Testing
6.1 Did you conduct and on-site, field water balance/leakage test on your ponds or lagoons that was approved by the Department and is still valid?
o Yes
Year


- No

If yes, what was the field Test Calculated Leakage Rate for your ponds/lagoons? $\square \mathrm{gpad}$
NOTE: if 6.1 is answered Yes, the value entered above in gpad will be used in 7.1 to compute points generated.
6.2 Leakage Rate Comments:
7. Estimated Leakage Rate and Points
7.1 The CMAR Estimated Leakage Rate (from 5) is used to determine the points generated in the table below.
If an approved field test was conducted and the results are still valid and accepted by the Department, the Field Calculated Leakage rate (from 5.2) is used to determine the points earned from the table below

| gpad | points |
| :---: | :---: |
| $0-1,000$ | 0 |
| $1,001-2,000$ | 10 |
| $2,001-4,000$ | 20 |
| $4,001-7,000$ | 30 |
| $>7,000$ | 40 |

## Compliance Maintenance Annual Report

Based on the leakage rate in gpad, the points earned are: $\square$

| Total Points Generated |  |
| :---: | :---: |
| Score (100 - Total Points Generated) |  |
| Section Grade |  |

